

AIR FORCE SPACE COMMAND

COMMANDER'S STRATEGIC GUIDANCE

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Foreword

Air Force Space Command delivers the most capable military space and cyberspace force the world has ever known. The passion, innovation, integrity and courage of our men and women is what sets us apart from those who seek to usurp our hard-won advantage in technology, system performance, military space and cyberspace operations and defense of our homeland. The vision, mission, goals, and priorities outlined in this Commander's Strategic Guidance affirm my commitment to provide resilient and cost-effective space and cyberspace capabilities essential not only for the security of our Joint Force, but also for the prosperity of our Nation.

Space and cyberspace are indispensable foundational components of modern warfare, national competitiveness and 21st Century daily living. In fact, almost every aspect of military operations, no matter how large or small, involves space and cyberspace systems in some fashion. For example, we now take for granted access to the critical capabilities provided by the Global Positioning System and the internet. Like all assets that contribute significantly to the Nation's defense, our space and cyberspace systems have become lucrative targets for those who wish to engage our Nation militarily. Operators in these once benign domains now witness increasingly destabilizing activity. Consequently, our continued use of these vital systems requires a renewed vigilance to protect and defend them.

In the near term, our challenges in the space and cyberspace domains are complicated by the reality of declining DOD budgets. These reduced budgets unfortunately come at a time when warfighter dependence on space and cyberspace capabilities is increasing and threats from potential adversaries continue to mount. These factors combine to produce a new environment that demands a renewed commitment to innovation. Today, more than ever, we need to devise affordable, integrated architectures that deliver expected performance and are resilient enough to do so in challenging operating conditions. Air Force Space Command will respond to this "new normal" by advancing our culture and climate of innovation—as it is Airmen who will be required to merge mission performance and readiness with fiscal responsibility. If we are to be successful, Airmen at all echelons must continuously seek operational efficiencies and effectiveness, closely scrutinize requirements, improve program execution, and search for more affordable architectural alternatives. And I have every confidence our Airmen will step up to this challenge!

WILLIAM L. SHELTON
General, USAF
Commander



Purpose

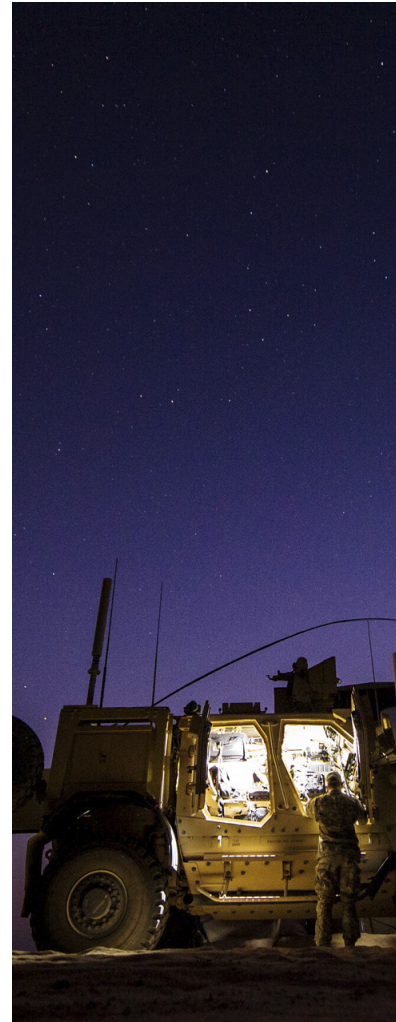
The Commander's Strategic Guidance 2014 – 2016 is our roadmap for change. It provides my overarching intent for the Command and a shared vision for the future of space and cyberspace that all Airmen can embrace. It also reiterates our mission, which remains constant, but requires new areas of emphasis in response to rapid change in our operating and fiscal environments. At an enterprise level, the Strategic Guidance conveys intent to mission partners and stakeholders in and outside the DOD and supports the Air Force vision of *"The World's Greatest Air Force, Powered by Airmen, Fueled by Innovation."*

Situation

National security space assets provide Joint warfighters and our Nation with strategic and tactical warning, assured communication, precision positioning, navigation and timing and environmental sensing—an unrivaled advantage in today's security environment. Use of these capabilities has evolved considerably in the past 20 or so years; however, the space systems themselves have not.

Cyberspace assets also provide our nation with significant capabilities in both the virtual and physical domains. Improved situational awareness and the ability to precisely deliver effects almost anywhere on the globe are just two examples that provide the Joint warfighters and our Nation with unparalleled options for mission success.

The rate of change in terrestrial warfighting doctrine continues to accelerate, virtually guaranteeing the future security environment will be different than today.¹ In *Joint Force 2020*, the Chairman of the Joint Chiefs of Staff echoes the defense strategic guidance for that environment, including two elements of crucial interest: projecting power despite anti-access/area denial challenges, and deterring and defeating aggression. Space and cyberspace capabilities are critical to ensuring the success of both of these elements.



¹ "Capstone Concept for Joint Operations: Joint Force 2020", Martin E. Dempsey, General, US Army, Chairman, Joint Chiefs of Staff, 10 September 2012



Concurrently, the overwhelming success of recent U.S. warfighting operations has delivered a wake-up call to our adversaries. State and non-state actors have witnessed the advantages of networked forces, precision targeting, and global reach available through space and cyberspace. However, with our reliance on these integrated systems, our adversaries have also realized an asymmetric opportunity. These actors can cause serious harm through unsophisticated and non-attributable techniques. Thus, as part of an integrated warfighting doctrine, space and cyberspace systems have become attractive and simpler targets to potential adversaries.

Dangers inherent in the space environment itself also have grown, including increased amounts of debris, competition for electromagnetic spectrum and the sheer number of satellites in space. In 2009, the first confirmed collision involving an active satellite occurred when COSMOS 2251 and a commercial Iridium satellite impacted on-orbit, creating thousands of pieces of debris.² We must adapt critical U.S. capabilities to the challenges of the operational domain if our operational advantage is to endure.

The threat to networked warfare has been well documented. Adversaries in cyberspace are exploiting low-entry costs, widely available resources, and minimal investments to reshape the threat. This means individuals or small groups of determined adversaries can use commercial low-cost technologies to potentially inflict significant and disproportionate damage to DOD missions and key national infrastructure.

Given the challenges of a rapidly changing security and fiscal environment, new, innovative and affordable approaches to provide resilient capability will remain our focus as the Command moves forward.

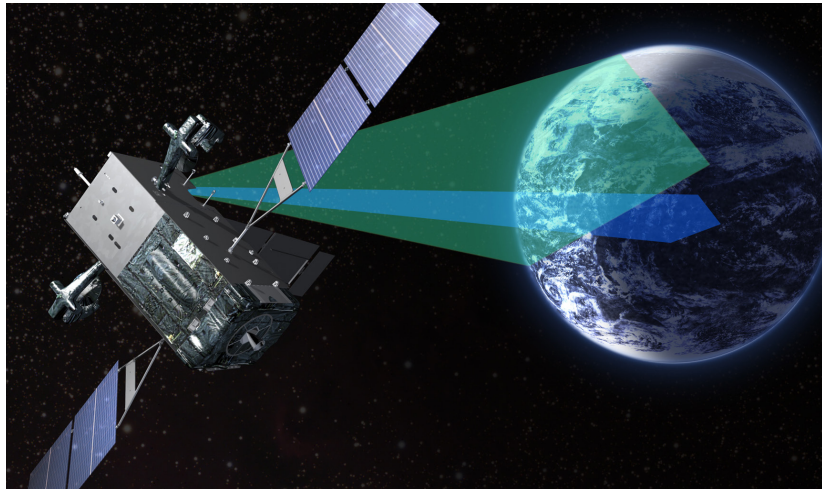


image courtesy of Lockheed Martin

²“Effects of Worst Satellite Breakups in History Still Felt Today,” Space Insider, 28 January 2013
<http://www.space.com/19450-space-junk-worst-events-anniversaries.html>



Vision

Our vision, “*Global Access, Persistence, and Awareness for the 21st Century*,” remains unchanged. It captures the Command’s strategic direction, commitment to excellence, and joint warfighting focus. Our vision sets a path for increased synergy between space-based and cyberspace systems supporting operations in all domains. It also implies that we must adapt to the threat and deploy capabilities that can exploit the domain while defending our systems and networks.

- **Global Access:** Using the advantage of unrestricted space system overflight and ubiquitous presence of cyberspace, we will evolve capabilities in, through, and from these two domains to help win America’s wars and protect critical infrastructure from attack.
- **Global Persistence:** Networked and resilient architectures are required for uninterrupted and survivable communications, navigation, and intelligence, surveillance, and reconnaissance (ISR) in support of a wide spectrum of future contingencies.
- **Global Awareness:** Through secure networks of fused information, commanders at all echelons will access precise, global, real-time data for use in proactive defense of space and cyberspace systems while providing situational awareness of global events.

Air Force

Space Command

Vision:

*Global Access,
Persistence, and
Awareness for the
21st Century*



Mission

Air Force

Space Command

Mission:

*Provide Resilient and
Affordable Space
and Cyberspace
Capabilities for the
Joint Force and
the Nation*

Our global mission is enduring. However, sufficient capability and capacity to meet warfighter and the Nation's needs requires a renewed push for innovative solutions. These innovations only come from the trained and focused minds of professionals across the enterprise. To successfully execute our mission in today's environment, our capabilities must be:

- **Responsive to national and warfighter requirements:** Space and cyberspace systems serve a variety of customers and they must be designed to meet validated and approved mission requirements.
- **Resilient:** The ability of a system architecture to continue providing required capabilities in the face of system failures, environmental challenges, or adversary actions.
- **Affordable:** The procurement of systems to meet sufficient mission requirements while considering both life-cycle costs and projected budgets. All possible trade space must be explored to ensure cost-effective capabilities.



Priorities

The Air Force identifies and plans for the fielding and sustainment of capabilities through 13 Service Core Functions (SCF). The AFSPC Commander is the Core Function lead for two of the SCFs, Space Superiority and Cyberspace Superiority. In this role, the AFSPC Commander is responsible for defining Service-wide investment plans supporting the SCFs and for establishing desired end states. In the near-term, Space and Cyberspace Superiority investments will be guided by the following programming principles:

- Divest redundant/tertiary functions to align with fiscal reality
- Extend legacy systems to meet requirements in core capabilities
- Provide robust operations at lower cost by pursuing more cost effective solutions
- Posture for use of commercial systems when possible
- Leverage agreements with DOD and international partners

We will apply these programming principles to optimize sustainment and modernization opportunities while minimizing risk within each of the following Command priorities:

- Support the Current Fight
- Control Space System Costs
- Operationalize and Integrate Cyberspace



Support the Current Fight

The Command's top priority is to support Joint Forces engaged in current operations. Space and cyberspace systems and personnel will remain focused on the global challenges facing air, ground and maritime forces stemming from increasingly more determined, sophisticated and adaptable adversaries. We also recognize that space and cyberspace legacy systems must tailor and adapt their support to post-transition stabilization phases in Iraq and Afghanistan. From system development to operations and sustainment, our actions must ensure uninterrupted delivery of critical capabilities. Supporting goals:

- Educate, train, and cultivate Total Force experts who are skilled in space and cyberspace capabilities
- Facilitate interoperability and integration in an increasingly coalition-based construct
- Assure electromagnetic spectrum access while balancing the needs of interagency, commercial, and international stakeholders
- Operate and sustain existing systems through transition
- Expand the Air Force's Wingman culture to AFSPC families to nurture success, support, and resiliency on the home front and to deployed locations



Control Space System Costs

The Defense Strategic Guidance, *"Sustaining U.S. Global Leadership: Priorities for 21st Century Defense,"* released 5 Jan 2012, encourages investment in advanced capabilities for defense networks, operational capabilities, and resiliency in space and cyberspace.

Space systems are inherently efficient over their life-cycle, requiring significant upfront procurement cost but typically operating for years beyond their design life with comparatively little operations and sustainment (O&S) costs. Therefore, space acquisition strategies must leverage mature technology, develop replenishment concepts that introduce smaller, less complex systems which consider life-cycle costs from the outset. For each approved and validated performance requirement, AFSPC will hold developers to performance, cost, and schedule targets through acquisition reforms that balance both incentives and penalties. Supporting goals:

- Move toward less complex, more affordable, more resilient systems and system architectures
- Improve requirements discipline
- Maximize inherent synergies found in common architectures and data standards
- Increase launch and space industrial base stability
- Invest in Space Modernization Initiatives to foster future system efficiencies
- Automate systems and processes
- Increase partnerships across the space enterprise

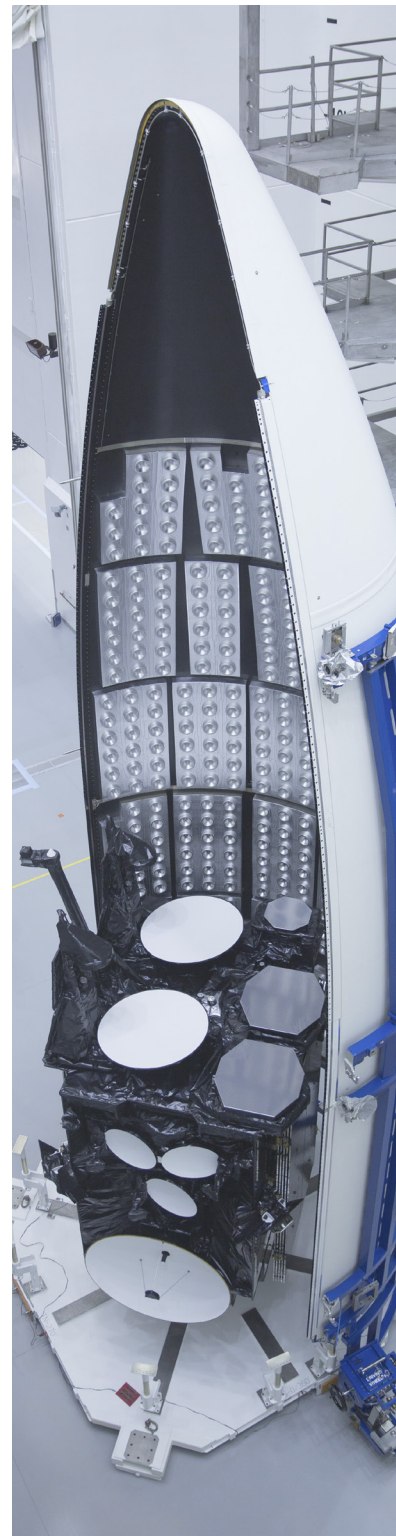


image courtesy of Lockheed Martin





Operationalize and Integrate Cyberspace

The Command has the responsibility to organize, train, equip, and provide forces for the Air Force's cyberspace mission. As experience and understanding of the cyberspace domain matures, we must focus our efforts to operationalize and normalize our conduct in it. Specialized training and education, such as Undergraduate Cyberspace Training, Intermediate Network Warfare Training, Cyber 200 and 300, and the USAF Weapons School Cyber Weapons Instructor Course, will continue to develop Total Force cyberspace professionals with the skills needed to acquire capabilities and operate in cyberspace.

AFSPC will build upon these achievements and work to improve in other areas such as cyber acquisition, command and control, spectrum access, and situational awareness. Cyberspace equities must be included equally across the board, from Professional Military Education to strategic and operational planning, to ensure cyberspace operations and capabilities continue to mature and are fully integrated across the USAF and the Joint Force. Supporting goals:

- Expand our collaboration with Joint, Interagency, academic, and international partners to safeguard our access to the cyberspace domain
- Develop, field, and employ operationally relevant cyber capabilities and effects to improve situational awareness, command & control and rapid response to threats
- Drive toward a single, centrally-managed, homogeneous and defensible enterprise
- Increase acquisition responsiveness while maturing cyber weapon systems and concepts
- Define roles and responsibilities of all key organizations
- Define approaches to bridge the AFNET to the Joint Information Environment (JIE); leveraging Joint services, Joint capabilities and AFNET standards



- Educate and train Airmen to operate in the JIE to the highest levels of excellence
- Build out the AF contribution to Cyber Mission Forces (CMF) to support Combatant Commanders
- Standup Joint Force Headquarters-Cyber to Command & Control CMFs
- Rapidly deliver cyber effects in support of AF core missions (e.g. Air and Space Superiority, ISR, Rapid Global Mobility, Global Strike and C2)
- Expand capability to defend missions beyond core AFNET/JIE to include critical networks supporting C-NAF commanders (e.g. TACC, AOCs, Space, etc...)



Conclusion

Defending the United States of America and its Allies is an on-going mission that requires disciplined planning and deliberate execution. The space and cyberspace capabilities we provide are an indispensable asset to Joint Force Commanders, the Nation, and users worldwide. The men and women of Air Force Space Command underwrite the security of US and coalition forces and their ability to succeed on today's battlefield. Because America depends on the global access, persistence, and awareness provided by the Air Force's space and cyberspace capabilities, the AFSPC team is honored to provide these vital assets for the benefit of the Nation.



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